

else, unless we have further occasion to repeat the experiment, which at present we do not contemplate. A Birmingham correspondent, who has perused our article, informs us that he is the proprietor of a composition in which "certain quantities of India-rubber and gutta-percha are directly digested with oils and certain resinous and bituminous substances, as well as alcoholic liquid, and form with it one liquid solution, which therefore unites all the qualities for a water and damp resisting fluid you wish to recommend." Our correspondent's letter, however, or advertisement, would be but too likely to lead to a little misunderstanding with the Stamp-Office authorities, were we to say much more about it here. One thing we may add from it, however, namely, that our correspondent recommends not only the four walls, but the ceiling and the floor to be completely covered with such a composition, as the damp will probably exude from either the floor or the ceiling if merely prevented evaporating from the walls. To convert a very damp room into a perfectly dry one, we believe our correspondent is right; but the effect on ceilings and floors especially, of loading them with suppressed damp, must also be considered.

SELF-TAUGHT SCOTCH SCULPTORS.

IN yours of the 11th inst., a correspondent, "W. R. C.," referring to "self-taught Scottish sculptors," expresses doubt as to Old Mortality being a work of J. Thom. Mr. Thom executed an Old Mortality some years previous to Corrie's attempt. Indeed, I believe Thom was in New York when Corrie "nobbled Wheatstone." But, Sir, having no wish to disparage Corrie, I will do him the justice to say, that I believe he was not aware of Thom's work until he had nearly finished his own. Thom also executed a colossal figure of Wallace, which is now in Lord Grey's beautiful grounds, Kinfauns Castle, near Perth. An equestrian figure of Tam O'Shanter was also a work of his. A self-taught sculptor, mentioned by Lockhart in his life of Sir W. Scott, used to accuse Thom of copying his Old Mortality. How far the charge was true, I know not. Old Mortality seems a great favourite with these self-artists. Another one, named Forrest, has also displayed his skill on the renovation of the "Hill Men" monuments. W. A.

THE IRON TRADE.

THERE has been more demand for rails, especially for exportation, within the last quarter than there was during the whole of the two years last past. Orders of a rather extensive description, mostly for rails, have been lately received from Germany, the Roman States, Russia, and India. There is a dread, however, amongst the iron-masters, that, as of old, there may be some degree of unsound speculation at the root of present appearances of returning prosperity. The English manufacturers are also jealous of the formidable competition successfully at work in Scotland, Wales, and Belgium. Notwithstanding that the prestige of the quarterly-price system has been so completely broken, and the attempt to impose impracticable prices on the great body of the trade formally abandoned, attempts are still being made to recur to them. A contemporary has just dished up the following stale composition for behoof of those who know no better:—"The meeting preliminary to the usual quarterly meetings is formed of the most extensive and important iron-masters in the trade. They fix a price, the highest which, under circumstances, the best iron can be expected to fetch, and from these prices the largest and most influential firms seldom, if ever, recede. But the small masters, who are not bound by the rules of this confederation, although fixing upon these prices as the legitimate prices of first-rate iron, continually undersell the largest and best makers, and by this means give a false and spurious tone to the iron-markets." Now the few great masters do not constitute the great body of the trade, but the mass of those whom it was ever attempted to convert into the nominal price system, under pain of being called "necdy" and "small." The legitimate tone of the market must ever be taken from the great body of the trade, however "small," and not from the few, however "great." The "false and spurious tone,"

therefore, is no other than that itself here still attempted to be imposed upon us as "the legitimate price," and several of the main supporters of this gross system of humbug not long ago themselves confessed its "illegitimacy," and renounced it altogether. No sooner is there a poor little glimpse of supposed "returning prosperity," however, than endeavours are made to ride the same high horse over the trade at large as ever. But it is now too late: the quarterly price dicta have once and for all admittedly "lost their prestige."—Accounts at the late meetings were as usual satisfactorily settled. Hopes are entertained that the demand for railway iron will be large during the ensuing year. No attempt was made, however, to raise even the nominal price some time since fixed on. The following are the quotations, such as they are:—Bars and rods, 5*l.* 10*s.* to 6*l.*; hoops, 5*l.* 15*s.* to 6*l.* 10*s.*; sheets, 6*l.* 10*s.* to 7*l.* 10*s.*; pig iron, 2*l.* 12*s.* 6*d.* to 3*l.* 5*s.*

LEAD CISTERN AND LEAD POISONING.

PROPOSED WATER FOR LONDON.

THERE can be little doubt that your correspondent's new cistern (see p. 13) has been destroyed by the absence of that very calcareous matter, which he thinks is in excess in the water. The "whitish fungoid substance" is most likely carbonate of lead, arising from the free carbonic acid in the water combining with the metallic lead, and acting, as it always does (probably through galvanic agency), on the projecting points of the lining, producing the spotted appearance he alludes to.

A new cistern erected at my house at Hershaim, in Surrey, in 1844, was completely perforated through the six in. lead of the bottom and lower part of the sides, in two years, presenting the same white fungoid appearance. Concluding from this, and from several cases of lead poisoning that had occurred in the neighbourhood, that the water had combined with the lead, I determined to try the experiment of coating the cistern with mineral pitch, which was done with two coats, and up to this time it has remained perfectly water tight.

The water of this district acts very quickly on lead, and its effect at Claremont, which was principally owing to the spring, which had previously been exposed to the atmosphere, being covered to preserve its purity, must be fresh in the recollection of all.

A most important consideration here arises from the recent suggestion of taking the water supply of London from the same source, and which, according to the report of the Hon. W. Napier, is "to be stored in a covered reservoir," to prevent the water becoming "warm, rapid, and badly tasted;" this, he states, will also prevent the action of its "extraordinary capacity for absorbing the impurities of the atmosphere;" but it will, at the same time, prevent its giving off its excess of carbonic acid, and, by combining with the lead, will fill our cisterns with an insidious poison.

In a question so affecting the health and welfare of thousands, I may be excused for entering upon a subject which, I trust, will be taken up more fully by better chemists than myself.

WILLIAM JEAKES.

Water may be defended from the action of lead on a voltaic principle. Discs of iron, attached to the bottom and the sides, one on each, with a thin layer of leather, Indian rubber, or gutta percha, interposed, will suspend the chemical action on the lead referred to.—J. MURRAY, PH. D.

THE BRITISH INVENTORS' PROTECTION COMPANY.—At a late meeting of this company, held at their offices, Aldermanbury, Mr. W. Harris in the chair, Mr. A. Campbell, the secretary, reported that he had received an official communication from "the council of chairmen of the Metropolitan Commissioners" for the International Exhibition, intimating "that space had been allotted for the exhibition of the company's model for the novomotive system of railway propulsion for superseding omnibus traffic." Mr. Campbell also intimated that the promoters of working men's associations were making arrangements to raise a capital of 1,000*l.* by subscriptions for the construction of a large working model to be used for conveying passengers during the exhibition.

ART IN IRELAND.

The Exhibition of Painting and Sculpture, at Donegal-place, Belfast, was opened a short time since. Some English artists have contributed some excellent works. The principal Irish artists, and their productions, are, Richard Rothwell ("Morning Obscure," and a portrait, "The Captives of the Harem," &c.), Charles Grey, R.H.A. ("First course, first served;" "A Jackdaw perched on a piece of bread, while a Terrier, afraid to bite, is watching it"), Mr. G. F. Mulvaney contributes several, among which is "The Knight and the Jeweller's Daughter." There are a few landscapes by Mr. Hugh Fraser; sea pieces by Mr. Kenrick; a series by Mr. N. J. Croly; and a large number of others.

The exhibition of the Dublin School of Design has been for some time open in the gallery of the Royal Dublin Society's House. His excellency the Lord Lieutenant and suite visited the exhibition privately. The productions of the pupils show an improvement on the former exhibitions of the Royal Dublin Society; but the collection is not so numerous as might be expected from the large number of attendants at the school. In the modelling department some fair specimens have been exhibited; also some clever water colours and etchings by the female pupils. There are few works of interest exhibited in the architectural department. The untid drawings are limited in number, and there are only four original designs for buildings in the exhibition.

PUBLIC BUILDINGS—ART IN THE COUNTRY.

THE last number of the *Athenaeum* has several remarks which we feel inclined to extract. With reference to our coming visitors, our contemporary says:—"Having engaged in an enterprise so grand, no thought of a paltry economy should prevent the cleansing of our streets,—the drainage of our Serpentine and other standing pools,—the orderly arrangement of our parks,—the opening of our public institutions,—and so forth. We suppose, as a matter of course, that it will be considered possible to get down the boarding at the British Museum, and clear away the obnoxious fragment of the lodge before the festival of nations begins. Will the chapters of St. Paul's and of Westminster Abbey insist on taking twopenny perquisites from the nation's guests? In the name of hospitality and decency, we hope not. The Englishman rambles from vault to tower of the Parthenon—from tomb to chapel of the Invalides—from aisle to gallery of Notre Dame: shall the Frenchman be stopped and taxed at the Tower, at St. Paul's, and at Westminster Abbey? We should be doing no more than is done to every Englishman in France if we offered larger facilities to our foreign guests for inspecting Windsor Castle, and for wandering about its regal parks,—dear as the Forest of Ardenne to the readers of our old literature. No man is refused admission into Versailles. Greenwich Chapel should be thrown open: no charge is made at the Invalides. Surely, too, the State prisons of the Tower—so full of sad and touching historical interest—the chapel of St. Peter ad Vincula—the noble tower of William Rufus—and all the rest of that striking pile of buildings—should be given to the public inspection."

A correspondent of the same journal suggests that, "By a very slight alteration Exeter, Change might be converted from a diemled woe-begone solitude, into a well-frequented rendezvous,—if any one would engage the entire locale, and fit it up as a Café and Restaurant's. Almost all the alteration required would be, to glaze the entrances and to remove the fronts of the shops,—which last would then become so many separate cabinets or boxes, with a dining-table in each. An extra consumption of gas would have to be calculated on,—as it would be necessary to begin to light up very early; and it would also be necessary to convert some adjoining house into the culinary offices requisite for an establishment of the kind on such a scale."

And, then, as to our country towns:—"The tastes which can enjoy and the means which can command the more perfect and durable forms in which art ministers to the intellectual